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ABSTRACT

The first in a series of evaluation reports gives characteristics of sites and approximately 500 students in field tests of Me and My Environment, a 3-year life science curriculum for 13- to 16-year-old educable mentally handicapped (EMH) adolescents. Described are the field test design, which involves 14 data gathering approaches, and the timetable (1971 through 1975) for development, revision, and commercial publication of the six units. The purposes of the initial field trials are given to be (1) testing to ascertain student success on each activity, (2) observing implementation problems and/or teacher approaches that enhance program effectiveness, (3) obtaining data on students' abilities and progress, and (4) serving as a laboratory for later curriculum development. Major questions examined are whether students can perform the cognitive tasks, how the activities work, how materials are used by teachers and students, and what student changes occur in areas such as task attention. Discussed are the selection of 10 state sites and criteria for selection of 14 teachers for field test 1 (near end of year 2); and selection of 21 teachers for 14 state sites for field test 2. Given for field test 1 are student characteristics: three of every five students is male; 75% of the sample is in the 12- to 14-year-old range; and one third of the sample consists of black or chicano students. There were more students in all age ranges and more representative minorities in field test 2. Major findings discussed are that outdated tests are the basis for placement of EMH students, and that 46 of 50 students aspire to finish high school. Included are 22 teacher-written vignettes of students. (MC)

ED 087190

Me and My Environment

FORMATIVE EVALUATION REPORT

JUNE 1973

Prepared by
JOE M. STEELE

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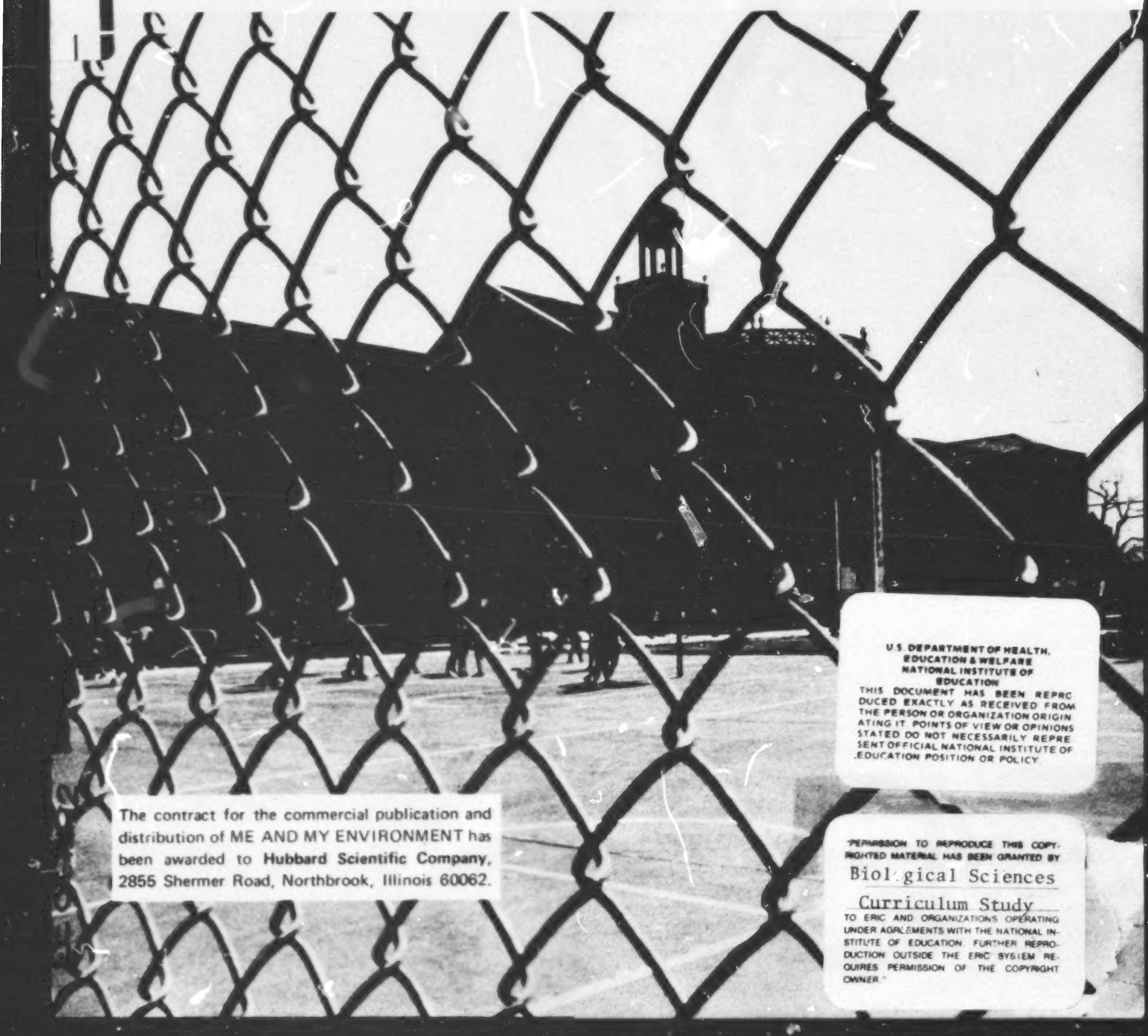
arranging field tests: characteristics of sites and students

BIOLOGICAL SCIENCES CURRICULUM STUDY



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ME AND MY ENVIRONMENT FORMATIVE EVALUATION REPORT 1

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FIELD TEST TEACHERS **(see page 12-13)**

FORMATIVE EVALUATION REPORT

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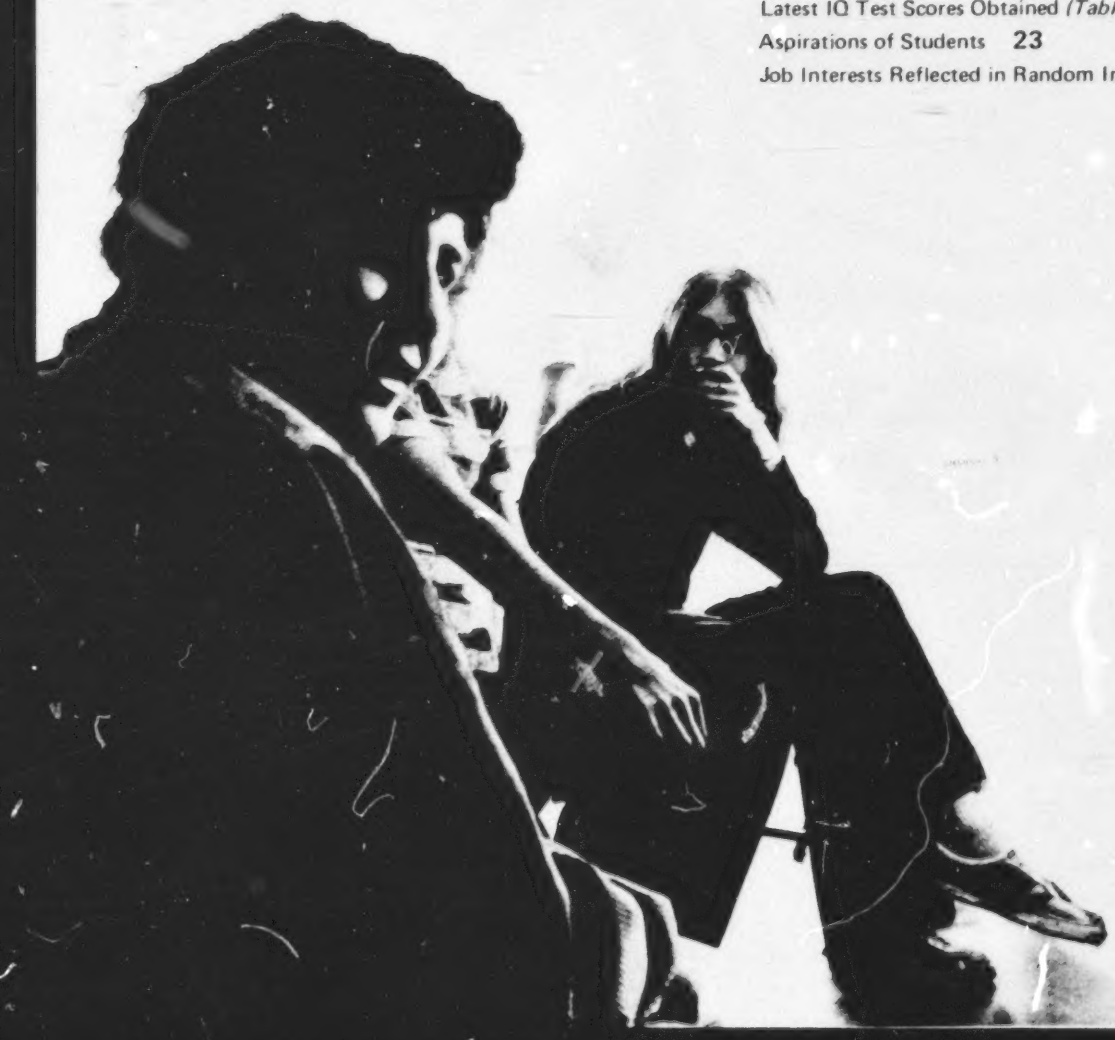


THE CONTEXT FOR THIS REPORT

ME AND MY ENVIRONMENT is a three-year life sciences program developed specifically for 13- to 16-year-old educable mentally handicapped (EMH) children. Its development and assessment, the actual materials and their use in the classroom, the approaches to data collection, and the student outcomes will all be subjects for study. These evaluative activities might best be viewed in the context of the four and one-half year timeline for the development, testing, and final commercial release of ME AND MY ENVIRONMENT. In order to make this curriculum available to special educators as soon as possible, the field trials overlap so that complete field tests of the materials are accomplished in three years.

The following table shows the major stages in the development and evaluation of ME AND MY ENVIRONMENT and working titles of corresponding interim reports which are anticipated:

TABLE 1

MAJOR STAGES IN THE DEVELOPMENT AND FORMATIVE EVALUATION OF ME AND MY ENVIRONMENT	CURRENT AND ANTICIPATED EVALUATION REPORTS
0. Development of Experimental Materials, Units I-IV (June-October 1971)	0. Plans for Formative Evaluation (Evaluation Issue, BSCS NEWSLETTER 46, February 1972)
1. Content Analysis of Experimental Materials (November 1971-June 1972)	1. Assessing Field Tests: Characteristics of Sites and Students (Interim Evaluation Report—May 1973)
2. First Field Test (November 1971-May 1974)	2. Assessing Student Abilities and Performance: Year 1 (Anticipated publication—Summer 1973)
3. First Revision of Units I and II; Refinement of Units III and IV, development of Units V and VI (June-September 1972)	3. Reviewing Content and Data Collection Procedures: Years 1 and 2 (Anticipated publication—Fall 1973)
4. Second Field Test (November 1972-May 1974)	4. Special Studies: Drug Use; The Camera as an Instructional Device, etc. (Anticipated publication—late Fall 1973)
5. Content Analysis of First Revision Materials (December 1972-June 1973)	5. Assessing Student Abilities and Performance: Year 2 (Anticipated publication—Winter 1974)
6. Second Revision of Units I and II for Commercial Publication (February 1973-January 1974)	6. Student Success with Revised Materials (Anticipated publication—Spring 1974)
7. First Revision of Units III and IV; Refinement of Units V and VI (June-August 1973)	7. A Review of Experience: The Content and Programming of Materials for Exceptional Children (Anticipated publication—Summer 1974)
8. Second Revision of Units III and IV for Commercial Publication (February 1974-January 1975)	8. The Formative Evaluation of ME AND MY ENVIRONMENT: A Summary Report (Anticipated publication—Fall 1974)
9. First Revision of Units V and VI for Commercial Publication (February 1975-January 1976)	

The materials in the ME AND MY ENVIRONMENT program consist of a series of Teacher's Guides with suggested teaching strategies for three years of daily science instruction. A kit of all equipment and supplies not ordinarily available in a special education classroom is an integral part of the program and instruction. The materials do not include a student text, as the program is designed around student conducted activities supported by a variety of multi-sensory and media instructional materials. Some of these, in addition to science equipment in the kit, include slides, cassette tapes, individual student worksheets, games, posters, wall charts, illustrated booklets, and evaluation materials. The program makes use of a 35mm slide projector and an overhead projector; active student involvement with a Polaroid Camera and a cassette tape recorder is also being field tested.

The serious reader of this report will likely have reviewed, or have access to, the Teacher's Guides to ME AND MY ENVIRONMENT. Therefore, information on the objectives, science content, and skill development of the curriculum will not be described here. (Refer to the front material in any unit of the Guides for this information.) The current project and its evaluation are based upon several years experience in developing and field testing ME NOW, a life science curriculum for 11- to 13-year-old EMH children.[1] The ME NOW program is available commercially from Hubbard Scientific Company, Northbrook, Illinois.[2] Several evaluation reports are available on this program.

[1] *ME NOW, LIFE SCIENCES: A SPECIAL EDUCATION PROGRAM, Biological Sciences Curriculum Study, 1972.*

[2] Hubbard Scientific Company, 2855 Shermer Road, Northbrook, Illinois, 60062.

FORMATIVE EVALUATION IN CURRICULUM DEVELOPMENT

A goal of most curriculum projects, including those of the BSCS, is to produce materials that are not only innovative but also better than those already in existence—and to make these materials available for use as quickly as possible. To this end, the goal of our evaluation in the BSCS is to gather information that will aid in immediate revision of materials as they are developed. This function of improvement and quality control is called *formative evaluation*.

A large part of the evaluative process is description, which serves to answer certain questions: What occurred when the materials were used? How were the materials used? What did students do? What can students do, now that they have used the materials? What attitudes and perceptions do students hold about the materials and the content?

An immediate aspect of formative evaluation is *clarification:* What are the intended student behaviors, and what specific outcomes are intended? The objectives, themselves, must be clarified: What is the teacher to do? What is the purpose of each activity? How is the content to be dealt with? What conclusions are to be drawn? What learning strategies are to be used? What are the products, attitudes, and skills to be developed? Which goals are the more important ones to emphasize and achieve?

In all cases, judgments of value must be made. Weaknesses and strengths must be identified. Decisions must be made on what should be eliminated, retained, or expanded. Standards of success must be established. Criteria for judging effectiveness must be specified. Instruments must be developed to measure these criteria. Tools of assessment specific to the program must be devised, tested, and refined.

All of these sources of data must be coordinated so that findings can be readily available and fully utilized in revising the materials. These evaluation aspects of curriculum development could constitute a developmental project in themselves. However, it is necessary to design evaluation efforts to conform to the realities of making studies in school settings. The limitations of funding and time narrow the range of questions it is possible to answer and restrict the depth to which they can be investigated. Evaluation becomes, in this context, a compromise with practicality. ■

FORMATIVE EVALUATION DESIGN FOR FIELD TESTS OF ME AND MY ENVIRONMENT

The design for the study and revision of this curriculum is illustrated on the opposite page. Fourteen data-gathering approaches, some of them overlapping, are used to obtain four kinds of information bearing on the major evaluation questions identified. Most of this data provides evidence immediately useful in revision of the materials.

Some redundancy was planned in data-gathering to increase our confidence in the reliability of the information. The different kinds of data serve a variety of purposes. Much data is collected which uses the classroom group as the unit of analysis. Other information is gathered by randomly sampling children in all test classes so that the unit of analysis is the entire field test population. Of course data is accumulated on each individual student as well. While some of the information is quantitative, a significant portion is qualitative. A separate report deals with specific data collection procedures, the purposes each serves, and the level of analysis involved.

Throughout the field trials the science instruction in four classes is continually monitored by observers. This intensive study serves to balance and enrich the data obtained from the 31 other test classes.

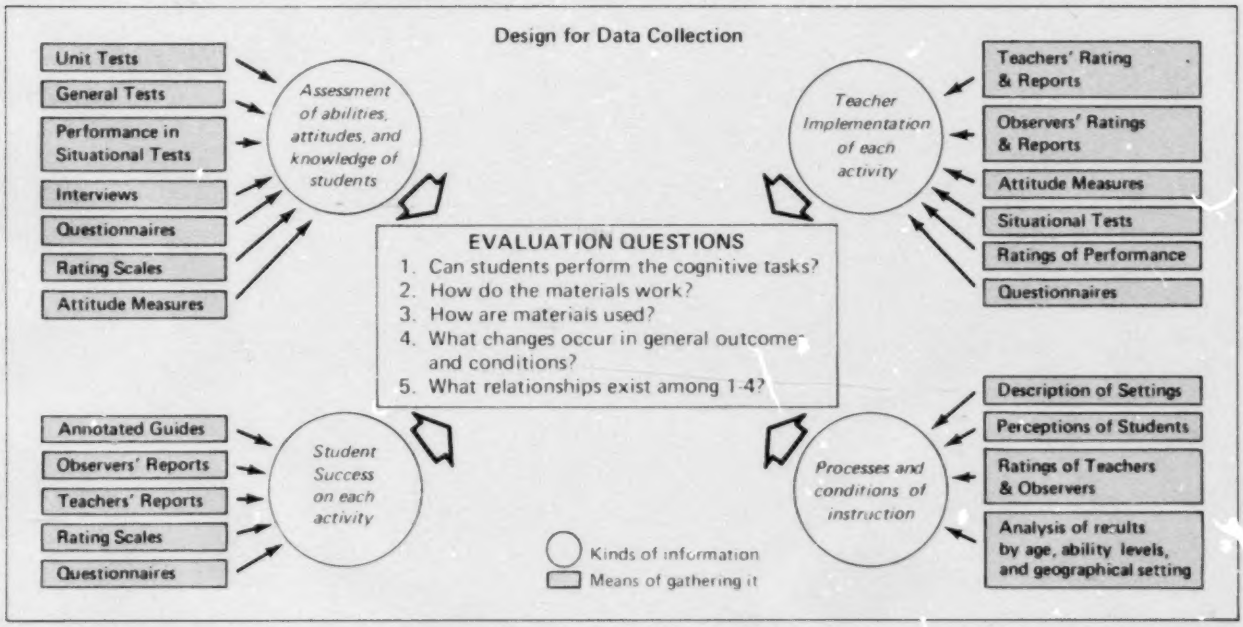
The field testing of ME AND MY ENVIRONMENT is not viewed as an experiment in the classical hypothesis-testing tradition. Therefore, a formal research design has not been used. A number of research techniques have been utilized when appropriate to further the purposes of the formative evaluation. Table 2 shows the schedule being followed in the repeated testing and revision of materials. ■

TABLE 2

Timetable for Development and Evaluation of ME AND MY ENVIRONMENT

	Summer '71	71-72 School Year	Summer '72	72-73 School Year
Writing Conferences **4-6 special educators** **4-6 biologists** **4-6 BSCS staff**	Develop Units I, II, III		Revise Units I, II, and III; Develop Units IV, V, and VI	Revise Unit I for commercial publication and release by September '73
Field Test I **14 classes** **205 students**		Testing and Evaluation of Units I and III		Testing and Evaluation of Units II and IV
Field Test II **21 classes** **303 students**				Testing and Evaluation of revised Units I and II

DIAGRAM 1



Timetable for the development and evaluation of the BSCS life sciences materials for junior high age EMH children

Summer '73	73-74 School Year		Summer '74	74-75 School Year	Summer '75
Revise Unit II for commercial publication and release by January '74 Revise Units IV, V, and VI for further field testing	Revise Unit III for commercial publication and release by September '74	End of Present Funding	Revise Unit IV for commercial publication and release by January '75 **Revise Units V and VI for further field testing if funded**	Revise Unit V for commercial publication and release by September '75	Revise Unit VI for commercial publication and release by January '76
	Testing and Evaluation of Units V and VI (end of First Field Test)				
	Testing and Evaluation of Units III and IV			**Testing and Evaluation of Units V and VI if funded**	
			Further testing contingent on continued funding.		

PURPOSES OF INITIAL FIELD TRIALS

The field trials are designed to serve four major purposes related to the major evaluation questions which have been identified:

1. To test how well each activity works with this population of children. To serve this purpose of providing the best possible test of the materials themselves, expert teachers have been selected who can implement the activities in the intended way and be alert to problems and possible ways of resolving them. In this way, the organizational and disciplinary problems of inexperienced teachers, which might be confused with weaknesses in materials, have been avoided to a great extent.
2. To find out firsthand the problems of implementation and to note variations in teaching approach which enhance the effectiveness of the materials. To serve this second purpose, four observers have attended each period of science instruction in nearby test schools. Staff visits to all 14 test classes have extended this exploration.
3. To obtain data on the entering abilities of the test population and to monitor interests, attitudes, skills, and knowledge acquisition throughout the course of instruction. A variety of kinds of information and techniques for obtaining these data are being used to achieve each of the goals of evaluation. Monitoring the children's performance involves achievement testing, scoring classroom behavior, using questionnaires and interviews, and utilizing rating scales completed by teachers and observers.
4. To serve as a laboratory for the development and validation of evaluative techniques for use in later assessment of this and other phases of curriculum development for EMH children. These techniques are also being explored for use by teachers in guiding instructional decisions.

Major Questions for the Evaluation of ME AND MY ENVIRONMENT

Underlying the field trials and all the data being collected is a detailed set of questions judged most appropriate to answer in the development of these materials. The following section elaborates the major questions and how they were formulated.

During the beginning months of planning for the development of ME AND MY ENVIRONMENT, a long list of potential data to collect was generated. Many questions were recorded that concerned various staff, consultant, and advisory personnel. The basic assumption as well as the general and specific objectives suggested further questions which might be answered through evaluation activities.

An evaluation conference was called which extended and reviewed these questions. Participants included: Dr. Pat De Marte, SUNY at Geneseo, New York; Dr. Barak Rosenshine, University of Illinois at Urbana-Champaign; Dr. Douglas Sjogren, Colorado State University; Dr. Willard Jones, Rocky Mountain Special Education Instructional Materials Center, UNC; and four BSCS staff consultants.

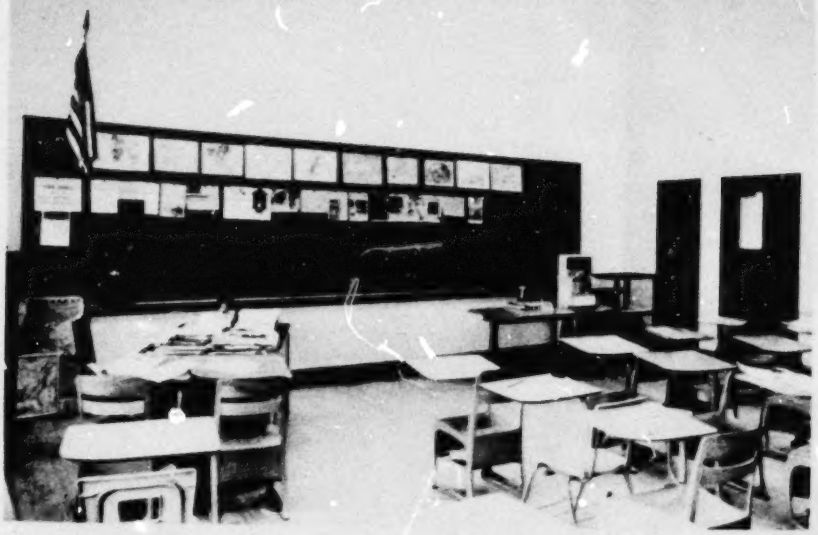
The outcome of this conference was the selection of the questions in Table 3, judged most important to be answered during the formative evaluation. Two sets of priorities were established. For the initial field test, the four sets of questions were ranked in the order listed. In the second field test, the set of questions listed last has been raised to first in priority to answer.

While it may not be possible to obtain definitive answers to these questions because of time and monetary constraints, efforts are being made to gather data on each with emphasis on those ranked highest in priority.

TABLE 3

Major Questions for the Evaluation of ME AND MY ENVIRONMENT

Priorities 2nd test	Priorities 1st test		Priorities 2nd test	Priorities 1st test	
2.	1.	**Can the students perform the cognitive tasks?** a. What is the level of baseline knowledge or performance (prior to instruction)? b. What is the proportion and degree of successful student performance? c. Is there growth in performance of any general inquiry skills such as: observing, describing, identifying, comparing, associating, inferring, applying, predicting? d. Is one subgroup of children more successful with the materials than another? (stratified by IQ; retarded, disturbed, disadvantaged, disabled learners; level of cognitive functioning based on Piaget and reinterpretation of IQ tests; worldly–naive; disruptive–cooperative) e. Can students attend to activities that extend for several days or weeks? f. What degree of awareness of problem-solving skills do students exhibit? 1. Do students know what the question under investigation is? 2. Do students have some guesses or predictions of outcomes or answers? 3. Do students have a plan to get answers? 4. How do students go about getting answers? 5. What forms of information do students collect? 6. How do students organize the data? 7. How do students treat results?—are assumptions rejected, conflicts noted, overgeneralizations made?			e. What degree of excitement and involvement occurs? f. Is there growth in any general affective behaviors, such as openness to ideas, reality, orientation, objectivity, precision, confidence, perseverance, and responsibility?
3.	2.	**How do the activities work (activity by activity)?** a. What are teachers' reactions to materials? b. What are students' reactions to materials? c. Are materials appropriate in all settings (urban/rural, older/younger, low ability)? d. Do students have positive attitudes toward science materials and their context (e.g., environmental concern, etc.)?	4.	3.	**How are the materials used (by teachers and students)?** a. Do the teachers use strategies as prescribed? b. For what reasons do some teachers deviate from the guide? c. Are the materials used *appropriately* (regardless of guide) by teachers?—by students? d. Does each student have the opportunity to perform each specific objective? e. Do most teachers need specific directions in using inquiry strategies? f. Do the materials involve the student in ways of applying the desired behavior? g. Is the curriculum successful with teachers who do not use inquiry strategies? h. Are there differences in achievement in high and low fidelity classrooms?
			1.	4.	**What changes occur in general outcomes desirable for these children? (e.g., social and group participation skills; perseverance; attention to task, ability to follow directions, etc.)** a. Do the materials aid in the development in the child of a knowledge of himself in relation to his environment along with a tendency to apply this knowledge? b. Can and do students apply ideas learned in new situations? c. Do the materials aid the child in establishing a sense of responsibility to and for his environment?



SELECTION OF SITES FOR FIRST FIELD TEST

Fourteen carefully selected teachers are now completing the second year of the first field test of ME AND MY ENVIRONMENT. (See map, pages 12-13, for a list of test teachers and schools.) Sites were located in ten states: Pennsylvania, North Carolina, Tennessee, Iowa, Nevada, Utah, Montana, Oregon, California, and four sites in Colorado, located within 60 miles of the BSCS where it has been possible for the staff to visit the classes frequently and to station the four full-time observers.

Criteria used in the selection of sites for the first field test are shown in the adjoining table. Initial requirements were that classes be composed of EMH children in the 50 to 80 IQ range, that most or all of the students be 13- to 16-years of age, and that each class and teacher be able to participate in the field test for at least two of the three years. Attention was given to locating sites with a wide geographic distribution, with a variety of different ethnic and racial backgrounds, and settings that ranged from low income/inner city to higher income/suburban locations. It was also a concern to locate a variety of administrative classroom arrangements: self-contained, departmentalized, and EMH facilities separate from public schools. In a few cases, it was possible to locate classes containing some students who had participated in the field testing of ME NOW, the life sciences curriculum developed for the intermediate (11- to 13-year old) EMH age group.

(Continued)

TABLE 4

Criteria for Selection of Experimental Teachers (and Districts) Testing ME AND MY ENVIRONMENT

A. The teacher should:
1. be highly recommended;
2. be flexible and innovative;
3. be able to use inquiry approach and involve students in activities;
4. be confident in ability and not unduly threatened by observation;
5. be at least in the second year of teaching at this school with this age group;
6. be willing to commit herself for a three-year period of field testing (November 1972-June 1975);
7. be willing to spend extra time in preparation for and evaluation of the ME AND MY ENVIRONMENT materials;
8. spend a minimum of 45 minutes daily teaching the test curriculum;
9. be willing to take children on field trips and do activities outside the classroom;
10. be willing to work with BSCS staff and participate in a training session prior to the field test and other training sessions as scheduled.

B. Most or all of the students involved must remain grouped together and with the same teacher for the three-year period.

C. The district must:
1. agree to the involvement as a field test site;
2. agree to provide substitutes for a 3-5 day training period each year;
3. agree to the presence of occasional observers in the test class;
4. accept the presentation of content that may be controversial (sex education, venereal disease, birth control);
5. agree to the involvement of the teacher in additional preparation and reports, relieving the teacher of as many extra responsibilities as possible;
6. agree that the test teacher can spend a minimum of 45 minutes daily of instruction in the test curriculum;
7. be willing to supply at no expense to BSCS, a class roster with recent validated Binet or WISC scores and home background information on each child. (Test information should be no older than Sept., 1970.)
8. be willing to allow achievement testing in the test classroom;
9. provide a locking storage cabinet in the classroom to store kit of materials;
10. provide the test teacher with a Kodak Carousel projector, cassette tape recorder and overhead projector.

D. Evaluation requirements for test classes:
1. classes must be composed of qualifying EMH children in the 50-80 IQ range;
2. most or all of the students must be in the 13-15 year age range; however, each class should be predominately 7th graders who will participate for the full three-year period;
3. each of the following categories should be represented by several classes in the field test sample:
   a. low income setting
   b. middle income setting
   c. inner city
   d. urban
   e. suburban
   f. rural
   g. self-contained class
   h. departmentalized science
   i. separate EMH facility
   j. sequel to ME NOW instruction
   k. no previous science instruction

E. Obligations of BSCS in field testing ME AND MY ENVIRONMENT:
1. complete field test kit (can be purchased at cost);
2. Teacher's Guides and printed materials will be furnished by BSCS;
3. supervisor of test teachers will also be furnished a Teacher's Guide;
4. a revised guide will be supplied to participating districts when available;
5. teachers and districts participating in development and field testing will be given credit in the published materials;
6. supporting services will be provided for test teachers (on-site training during visits by BSCS staff, frequent letters, and availability by phone);
7. an evaluation report will be sent to the district and participating teachers when completed;
8. BSCS staff will be available whenever reasonably possible for local and regional meetings as requested by participating schools.

SELECTION OF SITES FOR FIRST FIELD TEST *(Continued)*

Certain commitments were expected of the teacher and school district selected for participation. Given the above qualifications for test classes, the most important criterion for the first field test was the ability and experience of the teacher. The rationale for this was that the first field test of the materials be structured to provide the best possible test of the materials themselves without introducing the problems encountered by a first-year teacher in both discipline and organization. Therefore, one requirement was that all teachers have at least one year of experience. Another was that the district release the teacher for up to five days for training. Table 4 contains the reciprocal commitments of BSCS and participating schools.

A number of school districts had heard of, or been involved in the ME NOW field testing or other programs developed by BSCS, and had written indicating an interest in participating in field tests. From this pool of interested districts, some were contacted by phone to determine whether they had eligible

classes in terms of the population and setting desired. We specified that the teacher to be considered should be highly recommended, flexible, innovative, able to use an inquiry approach and involve students in activities, be confident and not threatened by observation, and be willing to commit herself to participation in the field test and extra preparation time, and to teaching the materials at least forty-five minutes daily.

An initial screening yielded 28 teachers, each of whom was visited by a staff member or someone, such as a writer, familiar with the program and materials. The teachers were observed teaching their classes and were interviewed, as a final step in the selection of the 14 participants.

The size of the first field test group was determined primarily by the amount of funding available, considerations of the costs of visiting sites, and the collection and processing of various kinds of data. It was thought more important to be able to monitor and judge the degree to which these teachers implemented the materials in an intensive way than to have a large number of sites with which we had little contact and little way to judge the nature of the treatment, and its fidelity to the intent.

Four of the 14 classes represented departmentalized or semi-departmentalized situations. The other ten were self-contained classes. One of the sites was a separate facility for exceptional children with different types of handicaps. Another site was an experimental school in which the EMH students were integrated into many of the regular class offerings. Half of the sites represented low income groups, including inner-city and rural. One site was in a lab school and was composed of 28 children in a team teaching situation. One site was a high school group which was selected to check on the interest and performance of older children.

These were the sites at which the first field test began two years ago and will continue for another year.

Two-thirds of the students in the first field test group are white, with the largest proportion of the other third being Black or Chicano, and with a few Oriental or Indian. Three-fifths of the group are male; two-fifths are female.

Average WISC (or WISC equivalent) total IQ score was 70 (S.D. = 9), and two-thirds of the group were 13 to 14 years old when the testing began. ■

SELECTION OF SITES FOR SECOND FIELD TEST

The 21 classes included in the second field test, now ending its first year, more closely reflect a cross-section of special education teachers than those who were carefully screened for the first test group. (See map, pages 12-13, for list of test teachers and schools.) In this second field test the district was given the same criteria used for teacher selection in the first field test but was simply requested to identify a teacher who, in potential if not experience, would be exceptionally good and willing to participate in this venture. This group of teachers ranges from several who are in their first year of teaching to some who have many, many years of experience teaching exceptional children. The majority have been working in the field of special education for several years.

The school districts of these teachers were identified by expressions of interest, usually letters, from a teacher or supervisor. The first year of field testing of ME AND MY ENVIRONMENT, the commercial sales of ME NOW, and presentations at such places as the 1972 International Council on Exceptional Children Convention in Washington, D. C., had led to many requests to participate in further field testing. Correspondence followed with nearly one hundred school districts. Of these almost one-third (34 districts) indicated a willingness to purchase the kit of materials and make the commitment for a three-year field testing effort. It was from this group that the final 21 field test sites were selected.

Schools were selected in 14 states: Massachusetts, New York, North Carolina, Pennsylvania, Ohio, Kentucky, Tennessee, Illinois, Iowa, Kansas, Colorado, Nevada, California, and Washington. In addition, one site was located in Edmonton, Alberta, Canada. Eight new states were included in the second field test sample, resulting in field testing in 18 states and Canada.

Because a great part of the special education population is located in large metropolitan areas, where students might respond differently to an environmental program than those living in suburban or outlying areas, and because for the urban group a predesigned curriculum poses problems quite different from those in a smaller district, considerable effort was made to locate at least half of the second field test classes in large metropolitan areas. Five test sites (one-fourth of the sample) are in inner-city ghetto areas in New York City, Denver, San Francisco, and Seattle. Another five (again a fourth of the sample) are in large metropolitan areas, but do not represent inner-city situations. Four test sites are in essentially rural communities. The remainder are in suburban or small town areas.

Approximately one-half of the students in the second field test group are in minority ethnic groups, primarily Black, Chicano, or Puerto Rican.

The second field test, like the first, is designed to sample three different age groupings of students. One set of five sites has students whose age at the beginning of the test was predominately below thirteen. The second major group of ten sites includes students who are predominately thirteen years old. A third group of six sites includes students most of whom are above the age of thirteen.

Again, as in the first field test, efforts were made to obtain a variety of sites representing self-contained, departmentalized, and separate EMH facilities. In order to include a larger number of schools and stay within the constraints of funding for the project, each of the participating districts purchased the kit of materials at cost. ■

LISTING OF TEACHERS AND CLASSES SHOWN GEOGRAPHICALLY

FIELD TEST 1

EASTERN

① **Mary Smith**
Shepard Jr. High
Durham, North Carolina

② **Edward McCann**
Mon Valley School
West Mifflin, Pennsylvania

③ **Richard Mathis**
Shadowlawn Learning Center
Arlington, Tennessee

CENTRAL

④ **Fred Strickland**
Nathan Weeks Jr. High
Des Moines, Iowa

⑤ **Dannette Boyle**
Nevin Platt Jr. High
Boulder, Colorado

⑥ **Wallis Kiryluk**
Cole Jr. High
Denver, Colorado

⑦ **Candace Light**
Hodgkins Jr. High
Westminster, Colorado

FIELD TEST 2

EASTERN

[1] **Joseph Sousa**
Harrington Way Jr. High
Worcester, Massachusetts

[2] **Sheldon Fine**
C. I. S. 148
Bronx, New York

[3] **Edward Sherman**
I. S. 131
Bronx, New York

[4] **Edward McNulty**
Eastwood Jr. High
Syracuse, New York

[5] **Alice Bigham**
Aycock Jr. High
Raleigh, North Carolina

[6] **Mollie Kite**
Pathfinder School
Bethel Park, Pennsylvania

[7] **Vito Lombardo**
F. D. R. Jr. High
Bristol, Pennsylvania

CENTRAL

[8] **Sue Wright**
West Locust Elementary
Wilmington, Ohio

[9] **Mary White**
Shawnee Jr. High
Louisville, Kentucky

[10] **Howard Shipley**
Judson Hill School
Morristown, Tennessee

[11] **Alma Jenkins**
Skiles Middle School
Evanston, Illinois

[12] **Joan McNulty**
Central Jr. High
DeWitt, Iowa

[13] **Hilda Thach**
Pierson Jr. High
Kansas City, Kansas

[14] **Carl Hoff**
Lafayette Middle School
Lafayette, Colorado

[15] **June Allbrandt**
Lake Jr. High
Denver, Colorado

[16] **Susan Thomasgard**
Merrill Jr. High
Denver, Colorado

WESTERN

[17] **Chaminade Farmer**
Gibson Jr. High
Las Vegas, Nevada

[18] **Eva Reedy**
Benjamin Franklin Jr. High
San Francisco, California

[19] **Edith Shipman**
Pacific Prevocational School
Seattle, Washington

[20] **Betty Silverthorn**
Selah Jr. High
Selah, Washington

[21] **Douglas McCullough**
L. Y. Cairns Vocational School
Edmonton, Alberta, Canada

⑦ **August Zeitlow (71-72)**
Carla Watts (72-73)
UNC Laboratory School
Greeley, Colorado

WESTERN

⑧ **Jo Ann Jeppson (71-72)**
Michael Rae (72-73)
Granite Park Jr. High
Salt Lake City, Utah

⑨ **Tom Rodgers**
Garside Jr. High
Las Vegas, Nevada

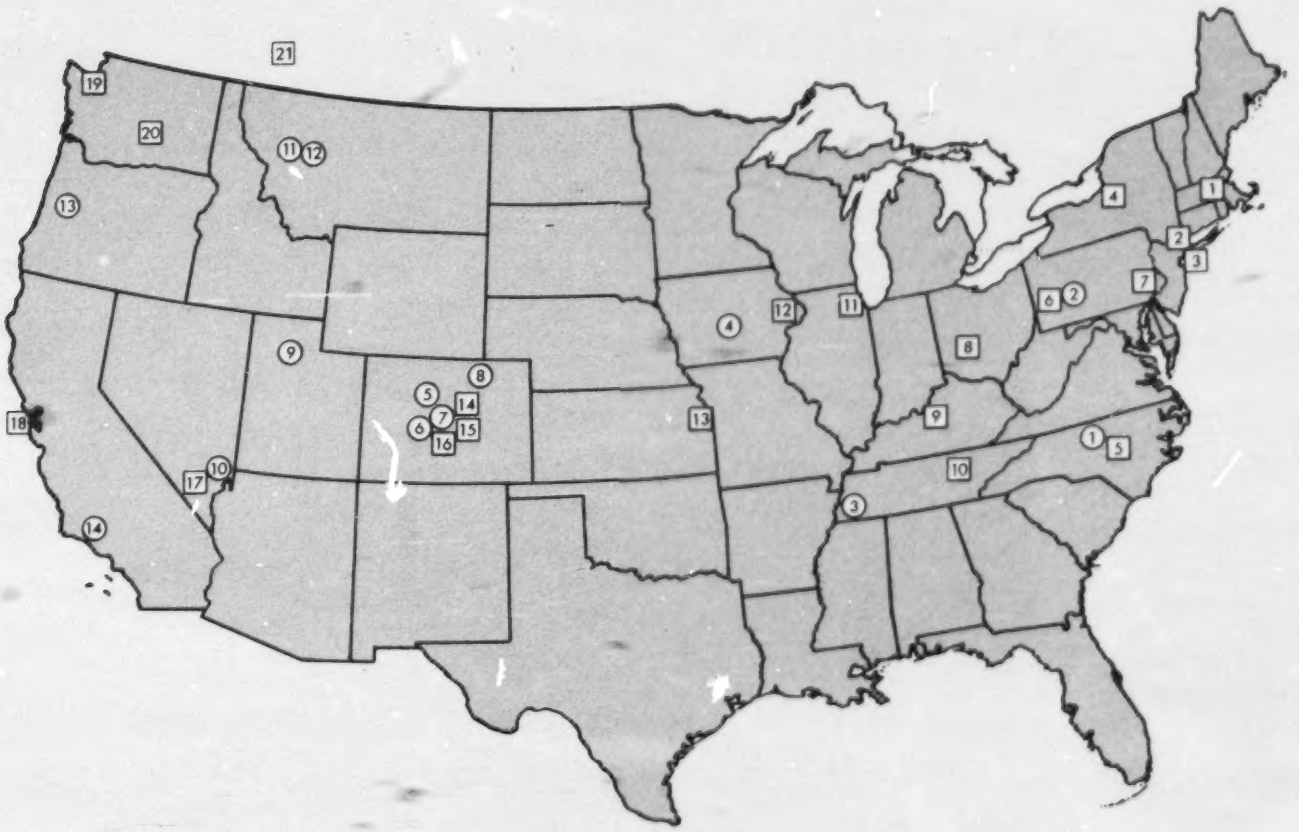
⑪ **Larry Allen**
Sentinel High School
Missoula, Montana

⑫ **Steve Johnson**
Central School
Missoula, Montana

⑬ **Cecil Linder**
Roosevelt Jr. High
Eugene, Oregon

⑭ **Vincent Alvino**
Goleta Valley Jr. High
Goleta, California

FROM EAST TO WEST COASTS



CHARACTERISTICS OF FIELD TEST CLASSES

There were a number of features of students and classes involved in this study that are typical (if not necessarily representative in sampling) for special education classes. Some of these include how children are grouped and housed, the resources available, the rate of turnover of students, and the reasons for placement in special classes. Related to the last factor is the permanence of classification. Another section of this report takes a close look at this issue.

In addition to demographic data provided by schools, information obtained from student interviews is given on the aspirations of the students. Other information obtained from staff site visits is also reported. A section beginning on page 16 contains a representative selection of teacher descriptions of students. A separate report describes measurement of ability and performance obtained during the 1971-72 school year.

The information on test classes is not generalizable to all junior high special education classes, in that the sample is too small and biased by careful selection to meet field testing requirements. On the other hand, we repeat that a number of characteristics in the sample reflect typical conditions in many special education classes. Readers of this report who find some of the information at variance with other studies are invited to inform us so that our own understanding of this population will be broadened.

This section first presents information based on the first field test group of 14 classes. Some comparisons are then made with the characteristics of the second field test group of 21 classes.

Background Data for Field Test 1, Years 1 and 2

Tables 5 and 6 summarize the composition of test classes as of January 1972 and 1973. The following information can be noted in the tables:

1. The rate of turnover in these classes is high. In the interval from the second month of field testing in the

TABLE 5

Field Test 1 Studen

Teacher	N	Sex		Age Range		
		M	F	12	13	14
00	16	15	1	2	4	4
01	15	8	7	7	8	
02	15	11	4		1	5
03	11	5	6	1	8	2
04	13	7	6	2	3	6
05	15	9	6	5	8	2
06	10	5	5		4	4
07	15	10	5	2	8	5
08	12	8	4			6
09	15	9	6			1
11	15	8	7		15	
12	16	11	5	4	12	
13	15	8	7	1	5	4
14†	26	13	13	1	3	10
Total Group	209	127	82	25	79	49
Percent		61%	39%	12%	38%	23%

**Oriental*
***Indian*
†Double class with team teaching arrangement.

TABLE 6

Field Test 1 Studen

Teacher	N	Turnover Rate			Sex	
		Dropped	Continuing	New	M	F
00	14	12	4	10	12	2
01	18	2	13	5	9	9
02	16	5	10	5	13	3
03	9	3	6	3	5	4
04	10	8	5	5	5	5
05	10	9	6	4	8	2
06	14	2	8	6	4	10
07	16	2	13	3	12	4
08	14	0	12	2	9	5
09	14	5	10	4	8	6
11	15	2	13	2	7	8
12	17	3	13	4	9	8
13	15	9	6	9	9	6
14	11	19	7	4	3	8
Total Group	193	81	126	66	113	80
Percent		42%	65%	34%	59%	42%

**Oriental*
***Indian*

first year to the same point in the second year, one-third of the initial group had emigrated. The total number of students remained fairly constant, indicating that one-third of the students who are now involved are new to the program. This turnover is consistent in 13 out of the 14 classes. A similar analysis in May 1972 indicated that this change *cannot* be attributed primarily to moving older students out and younger students in at the end of the year. The turnover appears to be primarily the result of students moving into and out of the school district.

2. Three out of every five students in Field Test I are males, a ratio that is typical for this population. However, about one-half of the test classes show roughly equal division of sexes,

(Continued)

Background Information: Year 1 (As of January 1, 1972)

Age in Years			Range in IQ					Mean	Ethnic Composition			
15	16	>16	50 & below	51-60	61-70	71-80	81 & above	IQ	White	Black	Chicano	Other
4	2			6	4	6		65.3	3	13		
				6	3	6		64.6	10	5		
9				2	8	5		63.6	6	9		
				2	7	1	1	66.8	10	1		
2				1	6	6		69.5	13			
				2	4	8	1	70.1	3	12		
2				2	6	2		66.3	8	1		1*
				2		8	5	72.1	15			
5	1		1	1	5	4		70.1	11			1**
2	9	3		2	6	7		69.0	15			
				2	4	6	3	74.3	1	10	4	
				2	1	8	5	77.0	12		3	1*
4	1			1	2	9	3	75.1	15			
5	6	1	3	5	13	5		65.3	16		10	
33	19	4	4	36	69	81	19	69.3	138	51	17	3
16%	9%	2%	2%	17%	33%	39%	9%		66%	25%	8%	1%

Background Information: Year 2 (As of January 1, 1973)

Age Range in Years						Range in IQ					Mean	Ethnic Composition			
12	13	14	15	16	>16	50 & below	51-60	61-70	71-80	81 & above	IQ	White	Black	Chicano	Other
	5		3	4	2		3	7	4		67.7	1	13		
	8	8				3	5	3	5		61.1	11	7		
		5	6	5			1	6	5	4	75.4	9	7		
	1	6	2				1	8			66.4	8	1		
1	2	5	1	1			1	2	6	1	69.9	9		1	
1	5	2	2				1	4	4	1	70.1	2	8		
4	1	5	4				3	9	2		65.4	12	1		1*
	2	8	6					2	9	5	77.1	16			
	1	1	6	5	1	1	2	5	5	1	71.3	12			2**
		1	2	3	8		3	5	5	1	68.7	14			
		15					3	5	4	3	72.3	1	11	3	
	2	14	1			1	2	2	9	3	72.9	12		4	1*
1	5	7	2				3	2	7	3	72.0	15			
	1	2	4	3	1		3	4	3		65.7	8		3	
7	33	79	39	21	12	5	31	64	68	22	66.8	130	48	11	4
4%	17%	41%	20%	11%	6%	3%	16%	33%	35%	11%		67%	25%	6%	2%

A SAMPLE OF TEACHERS' DESCRIPTIONS OF STUDENTS

At the beginning of field trials of ME AND MY ENVIRONMENT each teacher was asked to describe (on tape) each student included in the test class. The following 22 vignettes (comprising 10% of the students) were carefully selected to be representative of the entire test population. No more than two or three descriptions were derived from any single test class.

These descriptions are enormously revealing of the wide range of instructional difficulties and home or personal problems the schools are attempting to alleviate by placing these students in classes labelled "mentally handicapped." They also communicate the genuine concern for students and knowledge of them by teachers.

Some of the descriptions indicate the perspective of special education teachers in thinking and talking about their students. Occasionally this picture is slightly distorted, by the directions given to teachers when the descriptions first were requested. These directions were:

> Allow 3 to 5 minutes per child to describe the facts that you think are most cogent regarding the child's placement in this class and likely response to instructions.
>
> The following list need not be followed but suggests some things you might view as relevant:
>
> - ability to follow directions
> - participation in class
> - social adjustment; ability to work in a group
> - perceptual problems
> - current academic level of functioning
> - emotional adjustment
> - home situation
> - attitudes toward school
> - interests
> - response to new things (curiosity, enthusiasm)
> - degree of dependence
> - ability to accept responsibility; use own initiative
> - coordination and fine motor functioning

Each description below is reported in its entirety as the test teacher dictated it (except for deletion of names).

1. ***This student has an IQ of 62 and functions as a mildly retarded individual. He is quite capable of following most classroom directions. He participates in classroom activities and could be called the leader of the class. He has many friends in class and he gets along quite well with other children***

(Continued)

Background Data for Field Test I
Years 1 and 2 *(Continued)*

while only one-third establish the predominately male pattern.

3. The largest age group, at the outset, making up roughly two-fifths of the sample, was of students 13 years old --the primary target age. About three-fourths of the sample was in the 12- to 14-year-old age range. Classes 01 and 09 were deliberately

TABLE 7

Field Test 2 Student										
		Sex		Age Range in Years						
Teacher	N	M	F	10	11	12	13	14	15	16
21	16	10	6		1	8	5	2		
22	20	16	4		10	8	1	1		
26	16	7	9		1	8	7			
28	9	7	2			8	1			
29	14	8	6	2		4	4	4		
31	12	6	6			1	8	1	1	
32	11	6	5			2	7	2		
33	12	5	7			5	5	2		
34	18	10	8			1	13			
35	11	6	5				10	1		
36	14	11	3			5	7	2		
37	16	8	8		2	1	6	4	3	
38	15	9	6				14	1		
39	17	10	7				13	4		
41	19	13	6				9	8	2	
42	13	10	3				5	5	2	
43	17	14	3			3	11	2	1	
46	10	4	6				4	4	2	
47	12	7	5				3	5	4	
48	13	7	6				5	5	1	2
49	14	10	4			3	2	7	2	
Total Group	299	184	115	2	14	57	140	60	18	2
Percent		62%	39%	1%	5%	19%	47%	20%	6%	1%

**Oriental*

Background Data for Field Test 2, Year 1

Table 7 shows the data for the second field test group of 21 classes. A comparison of the demographic data on the two field test populations reveals that they are very similar in the proportion of boys and girls and in age distribution. Individual classes show a two- to four-year range of ages.

selected to test the curriculum at the lower and upper limits of the age range under study. Fourteen percent of the students were outside the 13- to 16-year-old age range.

4. The mean IQ (69.3) for students in Field Test I is quite high; 48% of the students are in the upper third of the target range. (In both field test groups, over three-fourths of the student population is above 60 IQ. This is to be expected as a characteristic distribution of extreme scores.) Eleven percent of the students in Field Test I have IQ scores above 80. (All IQ scores are WISC total scores or WISC equivalent, if the Binet was used.)
5. One-third of the test population consists of Black and Chicano students. They are concentrated in five classes: three in urban or inner city settings, one in a southern rural setting, and one in a midwestern farming community. The other nine classes are predominately white and almost evenly divided between smaller cities (population less than 50,000) and suburbs of large metropolitan areas. ■

Background Information: Year 1 (As of January 1, 1973)

Range in IQ					Mean	Ethnic Composition				
50 & below	51-60	61-70	71-80	81 & above	IQ	White	Black	Chicano or Puerto Rican	Other	Location
		8	6		69.6	5	11			Urban
	1	8	10	1	70.1	9	10	1		Urban
	1	7	8		70.3	16				Suburban
	2	5	2		67.4	8	1			Rural
		3	7	4	76.1	4		10		Rural
3	1	5	1	1	62.6	3	8	1		Inner City
1	3	7			60.4		11			Inner City
	3	8	1		64.1	3	2	7		Inner City
		4	13	1	73.7	7		11		Urban
1	1	5	4		67.0	1	9	1		Urban
	2	7	4	1	69.4	11	3			Smaller City
2	3	7	3	1	65.3	2	14			Smaller City
1	1	2	11		7[illegible].2	7	7	1		Inner City
		8	9		70.2	17				Rural
2	4	10	2		63.2		4	15		Inner City
	2	2	6	2	74.6	12	1			Urban
		9	6		69.6		17			Urban
1	3	4	1		60.8	3	7			Smaller City
	4	2	4	2	73.8	12				Suburban
3	3	7			59.6	12			1*	Smaller City
		3	9	2	75.3	14				Rural
14	34	121	107	15	68.2	142	105	47	1	
5%	11%	41%	36%	5%		48%	35%	16%	.3%	

Two features of the second field test group are different by design:

a. Differences in response to the materials by age were noted in the first year of the first field test. For this reason a more representative sample of age groupings was planned for Field Test II. Students in five classes (ID numbers 21, 22, 26, 28, 29) are predominately younger than 13 years of age. Those of ten other classes (ID numbers 31-39 and 43) are predominately 13 years of age. The students of the final six classes (ID numbers 41, 42, 46-49) are predominately more than 13 years of age.
b. Concern for the successful implementation of an environmental curriculum in a wide variety of settings led to the attempt to obtain, as near as possible, equal representation of inner city, urban, suburban and smaller city, and rural settings. Table 7 shows that this was accomplished. It resulted as well in an equal representation of the collective minorities and whites in the test sample. (The inner city and urban classes account for almost all of the minority group population.) ■

TEACHERS' DESCRIPTIONS *(Continued)*

in the building. His main drawback is his aggressive and impulsive behavior. Very often, he will fly into a rage of anger or some type of temper tantrum. He is a very unstable individual. His home situation is very negative. He is one of eight children and the father is not present. He is very interested in athletics and he participates on the school basketball team. He is a very curious and enthusiastic individual and is always willing to learn. He accepts responsibility and is able to handle it without much difficulty. His coordination and fine motor functioning are excellent.

2. *He is Black and very small in stature and has a speech impediment. His speech does not hinder him from talking. He is forever talking; he is a very lively young man. Along with his speech defect he has a major problem in reading. He ranks high in arithmetic but his reading level is very low. He is the kind that will talk and express opinions and ideas as they come to him. It's kind of hard for me to tell his academic skills since I don't have any experience in teaching him in any of the basic subjects. From talking to teachers in the building I have found that he is very weak in the reading area. I have observed him in the hallways and in the cafeteria and he is forever talking on various subjects. He should be able to relate back to us on the materials that will be presented and he should benefit and profit from this program.*

3. *This student has an IQ of 59. He functions as a very low EMH student. He is able to follow simple directions. He participates very well in classroom activities, but very seldom will he enter into any classroom discussions. He has many friends and is able to work in a group without much difficulty. He has a perceptual motor problem which tends to hinder his learning capabilities. He is quite well adjusted and seems to be a very happy individual. His home situation is terrible. He comes from a family of five retarded sisters, one retarded brother, and two retarded parents. The family lives on public assistance. He has no expressed interests. He responds very well to things. He seems to be a curious and enthusiastic individual. His coordination and fine motor functioning are poor.*

4. *This boy's listed IQ is 86. This is very misleading. First of all, he was listed in the 7th grade team situation, which is "normal." I had him in my module 7th and 8th with the 7th grade life science. He was a total zero in that class. He would ask to go to the restroom, or to the locker, or for water, and he wouldn't return, missing all his classes. We had a conference with the school psychologist from the downtown office. He suggested that this boy be kept in with the regular classes. We finally talked to the principal and had him changed to the special class. He is one of the brighter kids in this class. He acts well disciplinary-wise, he participates, he helps put the apparatus together, he doesn't mind putting on the goggles, and I think he learns things. I think in this type of course, with this type of student, he might just do all right. He has no perceptual problems that I can see.*

(Continued)

Grouping and Housing of Students in Field Test 1

All but two of the classes in Field Test I have stayed together as intact groups for all or most activities during the school day. In the other two classes, regrouping with other EMH classes has occurred for some subjects.

Most of the test classes remain with the same teacher for a two or three year period. Table 8 reveals further information on how these classes are housed and administered in the various school districts.

Three-fourths of the first field test classes are in regular junior high schools, but the students are almost totally segregated from the regular program for "normal" children. In one-half of the classes, teachers instruct students in all subject areas and remain with the same group for the entire school day. Most of these classes are the only intermediate EMH classes in the building.

The four classes located in separate facilities represent attempts to centralize the district's special education program and offer special facilities and programming. In three cases this special housing is immediately adjacent to regular schools but no integrated programming is attempted.

Ratings were obtained for the classrooms themselves and for the resources available for the special education program in Field Test I schools. These ratings were based on site visits, information from teachers, and discussions with school administrators.

TABLE 8

Schoolhousing and Administration of Field Test 1 Classes

	Regular School Building		Special School Building	
	Segregated	Integrated	Segregated	Integrated
Self-contained classroom	5 classes		2 classes	
Departmentalized by subject	4 classes	1 class	2 classes	

Classroom facilities for four of the teachers were found poor. The furniture is old and extra work areas are lacking. There are no storage facilities. Rooms are poorly lighted, ventilated by noisy fans, and in general are poorly maintained. Bulletin board and chalkboard space is limited. Few curricular materials of any kind are available and these are obtained at great effort on the teacher's part. A regimented, restrictive climate is reflected in the organization of classes throughout the school.

In contrast, six of the classes have had excellent facilities—adequate space, equipment, materials, and furniture, and plenty of storage space. The classrooms are bright and cheerful and the school climate relaxed and open.

These conditions are in part a reflection of the financial resources available, which range from a budget of fifty dollars per year to several thousand dollars per year.

Because site visits to second field test classes have not been completed, a similar analysis is not yet available on these classes. ■

TEACHERS' DESCRIPTIONS *(Continued)*

I see no interests. I don't know what his home situation is or his attitudes toward school, but he seems to be fairly well adjusted. I also think he's a very good con artist and he can do nothing and look like a zero when he wants to.

5. *This student is female, Black, a rather large girl for her age. She is one of the brighter ones that we have in my basic education class. She understands the printed page. She is the kind who will lose control if things do not go exactly the way that she thinks they should go. This is with her peer group. This does not happen in a teacher-student situation. She can relate to teachers well. She tries hard to get the proper understanding of the material that she is working on. She should give us very good feedback in school. She is in home economics and seems to enjoy this work. She can read the menus and carry out the assignments that are given to her.*

6. *He is a 7th grader who came to our school from a school in the Black neighborhood, or ghetto-type neighborhood. When he first arrived at the beginning of this school year, it was my opinion that he was a trainable level child. However, I now feel that he is an educable mentally retarded child. He is, though, on the lower level as far as being "academically equal" to his peers. He has the ability to follow directions if they are presented to him slowly, and he will follow directions when they are given to him in that manner. He participates only slightly in class. This may be due to the fact that he does not comprehend things as rapidly as others. He seems to be as well adjusted socially as others who came in with him. He works best individually rather than in a group. He has no perceptual problems that we have identified; however, he does have a visual problem. He should be wearing glasses and is not. We are attempting to obtain them through service groups and to have his parents purchase them; however, they have exhibited very little interest in buying them for him. He is probably functioning at the present time on a 5th grade EMH level. He does seem to be adjusted emotionally. I know very little about his home situation other than the fact that they have made no effort to obtain his glasses for him. His attitude towards school is good. He does seem to like it and attends regularly. He responds rapidly to new things. If a new tape recorder is placed in the room, he is interested in it and tries to work it. He does not seem to be dependent upon anybody but there are few people in his life on whom he can depend. He has accepted responsibility as well as most. He uses his own initiative equal to that of his peers. He seems to be coordinated and to have the fine motor functioning of a normal child of his age.*

7. *This student is a new 7th grade student. He lives with his mother and step-father and he is an "only child." He is a diabetic and is under a doctor's treatment. He also attends a regular 7th grade history class and his teacher tells me that he is doing quite well in class. He works well in my classroom—follows directions very well, gets along with the rest*

(Continued)

PLACEMENT IN EMH CLASSROOMS

Alfred Binet commented in 1909 that "the familiar proverb which says: 'When one is stupid, it is for a long time' seems to be taken literally by teachers, without weighing it..."[1] Based on the out-of-date intelligence test scores reported for many students in the first field test classes, it appears that school districts also accept this dictum. As Table 9 shows, 90 children, or 43% of the test population, had test scores obtained three or more years prior to the initiating of field tests of ME AND MY ENVIRONMENT. In the Spring of 1972, repeated requests were made to the school districts for these children to be retested. Five of the 14 districts complied, testing 25 of the 90 children. However, in the interim, new students with outdated scores have entered the classes so that in February 1973, 43% of the test population still had IQ scores obtained *four* or more years ago. Half of these scores were obtained six or more years ago when these children were eight years old or younger!

Test scores in the second field test classes are more current, perhaps because of our added emphasis. Even so, one-third of the students (102) have IQ scores over four years old. These students are concentrated in seven larger cities, where from one-half to all of the students in a class have not been tested since they were eight or nine years old.

Does a recent test score really matter? Several facts suggest that it does. The teachers in the first field test have reported that 70% of their students were placed in their classes on the basis

[1] *Alfred Binet, Les Idees Modernes sur les Enfants. Paris: E. Flamarion, 1909.*

of low intelligence. The test score is the primary basis for this judgment.

The reliability of such test scores is lower for young children, and the error of measurement in an individual score can be as high as plus or minus 13 points. Thus, if a child's IQ, measured years ago, was in the 70's, his retest score might actually be much higher than the legally defined EMH range. What happened in the 25 cases where retesting was done? Because of the small number of retests, the evidence is far from conclusive, but it is revealing. Seventeen students attained higher scores on the retest, six obtained lower scores, and two remained the same. Over one-half of those whose score increased obtained an IQ score of 80 to 91. If the same ratio were to hold for students who still have not been retested, 36 of the 90 students with old test information would have scores above the generally accepted EMH range. We feel that this has important implications.

Should these students be in EMH classes? Let us explore the implications further. Many of these children were placed in special classes years ago. The lack of recent test scores would suggest that their placement has received only a cursory review in the intervening years. They have not only incurred the stigma of being labelled retarded but have been exposed to a far different curriculum than normal children—in many cases to the point of no return as the gap between a normal and special program widens each year.

Teachers participating in the first field test indicated that another 30% of their students, or 61 in all, were placed in their classes primarily for reasons *other* than evidence (whether old or recent) of retardation. Of these 61 students, 27 were said to be "disadvantaged," a category defined as economically deprived or deprived of food, experience, stimulation, and emotional support. Seventeen children were placed in test classes primarily because they appeared to be emotionally disturbed. The remaining 17 children were placed in these classes primarily because of physical disabilities and learning disabilities other than retardation. Thus, when possible errors in testing are included, the appropriate placement of 42% of the test population can be questioned.

Note that the good intentions of the districts and teachers involved are *not* in question. In many cases placement in these classes may well represent the best available programming for these children. However, the consequences for the children involved are extensive. The stigma of the EMH label is one consequence. Another is that segregation in an EMH classroom is for a long time. We are, therefore, concerned over the basis for assignment to special education

(Continued)

TABLE 9

IQ Test Scores Obtained Prior to 1970-Field Test 1 Classes

Last Test Date	00	01	02	03	04	05	06	07	08	09	11	12	13	14	Total
69	5	1	2	1	1	3	4	1		1	4	3		1	27
68		1	3	1	1			2	2	5	2	2	2	2	23
67			4	3			1	2	3				1		14
66			1		1						1		2		5
65			2	1				1	1				1		6
64			1					1	2				1		5
63									1	1			2		4
No Data			2					2	1				1		6
TOTAL	5	2	15	6	3	3	5	9	10	7	7	5	10	3	90 of 209
Percent															43%
Number Retested	none	none	seven of 8 cont.	none	none	two who cont.	none	all	none	none	three	all	none	none	

TEACHERS' DESCRIPTIONS *(Continued)*

of the students. He has a good attitude toward school. His particular interest right now seems to be in the area of cars and in reading about sports cars and race car driving. I have not noticed any severe perceptual vision problems in him but his art teacher brought to my attention the fact that he has quite a bit of difficulty in distinguishing size differences between upper and lower case letters in the lettering work they are doing.

8. *This student has the ability to follow directions and does so in most cases. However, in some cases, she exhibits a stubborn streak. At those times, she will not follow directions, no matter what they might be. She will participate in class when called upon but very seldom volunteers. I think that this is due in part to the fact that she is an overweight girl and does not want to call attention to herself. She does seem to be adjusted fairly well socially and works well in a group but will never be the group leader—she is always a follower. In the past, however, when she has not agreed with the group leaders, she has refused to follow. She is mentally retarded and is currently functioning at the normal level for an 8th grade mentally retarded child. She seems to be very well adjusted emotionally. Her mother takes a deep interest in her. Her mother will be one of the few people who will attend an open house held every year for all parents of all students in the school. Her father does not come. Incidentally, her mother is divorced—the father that I am referring to is actually the step-father. Infrequently, her real father and grandparents will pick her up and take her on a weekend trip. She looks forward to these very much. She has a good attitude towards school. She likes to come to school and does any work assigned to her. She has a normal interest in boys. This started to develop last year and is now being carried forth normally to the 8th grade level. None of these girls have had a date yet but they all see the boys in the hall and they are all deeply, madly in love with them. She is slow to respond to new things. When a new piece of equipment is placed in the room, like a tape recorder or an overhead view projector, she will be one of the last to show curiosity or enthusiasm about it. She is not overly dependent upon her parents, or teacher or anyone else. She accepts responsibility readily, and can be depended upon moderately to use her own initiative. Her coordination and fine motor functioning are about what one could expect from an 8th grade, overweight girl.*

9. *This student is a 9th grade student. She was only placed in special education last year. I know you can tell that she does not really qualify but she was placed in special education because of her failure to integrate into the regular junior high school program. She is extremely self-conscious and during her 7th and 8th grade years went through a lot of torment due to teasing by other students in the school. She comes from a large family and the father is not presently working. The home economic situation is very poor. She is a very willing worker, a very good helper, and hopefully this year is beginning to come out of her shell as she is beginning to get some recognition in the school, as an usher during assemblies.*

(Continued)

Placement in EMH Classrooms *(Continued)*

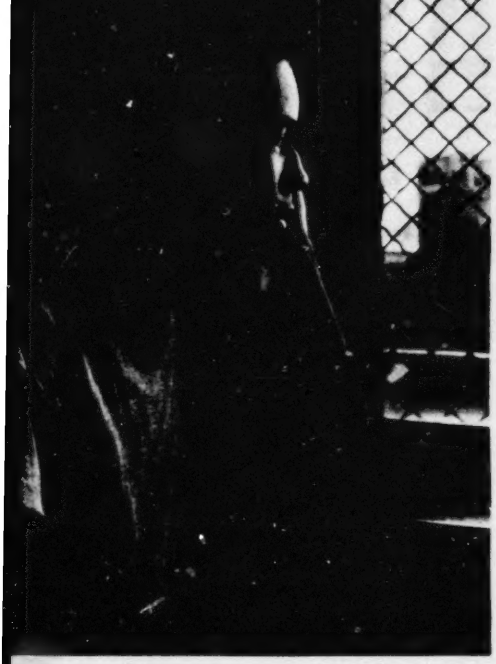
classes and stress the need for a more frequent and adequate review of children placed in them. Teachers often feel powerless to influence who is placed in or taken out of their classes. One teacher wrote that the only information she ever received on a student was an IQ score, unless the placement office saw fit to release other information!

Analysis of data from the first year of field testing of ME AND MY ENVIRONMENT indicates that the student's IQ score is not educationally relevant for this curriculum. IQ scores explained little or none of the differences in performance of students as measured by test items developed for the materials. (See Report Number 2, *Assessment of Student Abilities and Performance*, for further information on this analysis using multiple regression techniques.)

If more educationally relevant variables can be identified for placing children in special classes, perhaps the stigma of retardation (and the centrality of an IQ score) can be avoided. It might be that a more appropriate description for many of these students would be "academically unsuccessful." Possibly curricula such as that being developed by this project can offer a meaningful alternative which allows these children to experience success.

What has been said here regarding placement of children in EMH classrooms has not included teacher judgments, a criterion that plays a major part in the screening of students in many classrooms. Hence, even in the presence of other, unintended consequences, special education classrooms provide a means of intervening in positive ways and humanizing the school experience for a number of children.

The concern and dedication of these teachers can be seen in descriptions of students which they recorded on an audio tape during the 1971-72 school year. These descriptions also reveal characteristics of students which are suggestive of educational problems. They seem far more revealing of the nature of this population than the preceding tables of demographic data. ■



ASPIRATIONS OF STUDENTS

One-half of the students in ten of the first field test classes were randomly selected and interviewed during site visits to those schools. One question asked was, "Do you want to finish high school before you go to work?" Of the 50 students from whom a response to this question was obtained, 46 said yes, they wanted to finish high school.

A second question included in the interview was, "What kind of job would you like to have when you get out of school?" Table 10 summarizes responses to this question by class.

Among the implications from these data are the following:

1. Junior high school EMH students do aspire to finish high school, and appropriate programs need to be available at the high school level.
2. Most junior high school EMH students have some idea of what they want to do after high school. Three-fourths of the students appear to have realistic aspirations.
3. One-fourth of the students, or about two per classroom, aspire to an occupation which requires education beyond the high school level. Such occupations as doctor, nurse, teacher, and secretary, may lie beyond their abilities and reflect unrealistic aspirations. This information needs to be considered in the development of curricula both at the junior high and high school levels. ■

TABLE 10

Job Interests Reflected in Random Interviews

"What kind of job would you like to have when you get out of school?"

CLASS	N†	TYPE OF JOB	DK*	NR**
00	8	Nurse; marine; artist; architect or doctor; city bus driver; policeman.	2	0
01	6	Steel mill worker; school bus driver; teacher; overseas telephone operator.	2	0
02	8	Nurse (2)	0	6
03	4	Typist; cop; nurse	0	1
04	9	Store clerk or nurse's aide; college to become a mechanic; housewife or babysitter; mechanic; racing car driver; secretary; forest ranger.	2	0
05	6	College and become a nurse; doctor; maid (2); cafeteria worker or babysitter.	1	0
06	5	Truck driver; actress; gardner; nurse (2).	0	0
07	10	Babysitter; college (doesn't know for what job); engineer of a park train; ranch job; policeman or ambulance driver; logger-trucker; navy; police officer; nurse or secretary; work in a store or bank.	0	0
08	10	College and into navy; nurse; waitress or telephone operator; sign painter; store clerk; restaurant worker; cafeteria worker.	1	2
09	8	Truck driver (2); secretary; elevator operator; teach choir.	3	0
TOTAL	74		11	9

N† = *Number interviewed* DK* = *don't know* NR** = *No response*

TEACHERS' DESCRIPTIONS *(Continued)*

10. *He is a very active individual. He is a constant eruption in the classroom but he can be controlled when isolated. He can follow directions just fine. Participation in class? As long as you can keep him quiet when giving directions. He is constantly interrupting. He is learning to adjust to situations in school. Socially he is still trying hard to be accepted. I see no perceptual problems. His academic functioning would be right in the middle of this whole classification. There is still an emotional adjustment to be made. He is still adjusting to the junior high program, but not any more than the rest of them. He is doing very well. I think that he will fit into this program. Attitude towards school is good. He does like the school setting. He does seem to be interested in science. His degree of dependence is nil. He is able to move around on his own and requires little supervision as far as doing things on his own. He just needs to keep himself out of trouble and quit hitting and fighting with other kids. He has the ability to accept responsibility. He has met most of the challenges in the area of responsibility. He has no real coordination problem. He can move around very well. He is in a regular PE program. In general, I would also think that he would fit into the science program.*

11. *He does not see very well, mutters to himself, and does what he feels like doing. It may or may not have any relationship to what the rest of us are doing. He is in a house with three women and patterns his behavior after them. He has the ability to follow directions. He does participate in class. He has the ability to work in a group. He reads on the 2nd grade level. He does enjoy school. He is interested in pictures. He has little curiosity. He is independent. He has the ability to accept responsibility. He has good coordination.*

12. *This student is a very shy and introverted girl. She can follow directions, but most of the time she will just draw pictures on her paper or on her desk or something. If you don't stand right over her and help her do something, she will just draw. She very seldom participates in class. Socially she stays by herself. She will not work in a group. Her academic level of functioning is quite high—at least the seventh grade. Her reading is excellent and she loves to read. This is probably because it is an escape to read and she can stay away from people. Emotionally she is not very well adjusted. She gets very upset at little things. If there is too much noise in the room she becomes quite upset. She likes school—she just doesn't like the people around her. She is creative. She is not very independent, she just stays by herself. She doesn't know where to go and what to say and she gets very confused. She is a sweet girl; she just stays by herself all the time.*

13. *She responds very well. She is quiet and you have to draw things out of her. She is opening up more, though. She does have a heart condition that could be very crucial at this point. She is showing signs of being tired about halfway through the day to a point where, under situations of stress, she turns pale, and she is presently under a doctor's care to find out just how severe the heart condition is, how much stress and strain she can take, and what to be aware of. She does have this condition, which, depending on how things are going, could have significance in how well she stays with what we are doing. This is not to say that this program will cause stress, but the total program at school may cause stress. She does participate well in class when she is there. Her social adjustment is relatively good. I see no perceptual problems at all. She reads in the third grade area. Emotional adjustment seems to be very good. Her home situation is very positive. Attitude towards school is good. I am not sure of all her interests. She is unable to take any PE classes because of the heart condition. She is able to move around very well. There are no motor problems at all.*

(Continued)

TEACHERS' DESCRIPTIONS

(Continued)

14. *This boy was last tested in 1969 and has a WISC IQ of 79. He is Spanish-American, and Spanish is spoken in the home. He does have good English. He is absent very much. He will come sometimes in the morning but he will always take off at lunch. They have tried many things with him. Everybody has been talking to him. Nothing will work. He has a record of having been absent all through elementary school. He was delinquent when in elementary school. He also has a record of fighting and causing trouble, but while he has been in my classroom—the few times he has been there—he has been a well-behaved, well-mannered boy. I asked him about his truancy and why he doesn't like school, but he seems to clam up. He can follow directions. He does not participate much in class discussions but when he is interested in something, he does talk about it. Social adjustment I think could be good if he was there enough—it's hard to tell because he is absent so frequently. He has not been in any fights or arguments the few times he has been in school. Academic level of functioning is about the 3rd or 4th grade level. Because of delinquency and his past record of trouble, he does have some emotional adjustment problems. Home situation is abnormal. He lives with his grandfather and several relatives in town and they are shuffling him around. Attitudes toward school are, of course, a complete turn-off. He just does not like school. His one interest would be shop. He does like shop and he can get in there to make things. Academically he likes math better than anything else. He does not seem to show much enthusiasm or curiosity about things. He is dependent upon himself—he does not need to depend upon others. He does not have any initiative to assume responsibility other than that which has been assigned to him. He is a heavy, stocky boy but coordination and fine motor functioning seem to be fairly normal.*

15. *She is a white girl; probably she could be the sharpest girl in my class. I really wish that she would have been transferred to another school. Her classmates remember her from the time when she was little and was throwing tantrums all the time. She has grown up now and really tries hard but the kids still call her a baby. They just try to see if they can get her to lose her temper. She frequently can follow directions and she participates in our class activities, very much so. She has vision problems and she also has emotional problems, mainly stemming from the fact that she is a foster child and has never known her parents. In other words, she is one of those non-adoptable children. She is starting to see herself for what she is. She seems to like school and her interests lean towards art. Anything having to do with art, she just loves. She is very good at that. She loves to make posters for the classroom. Usually if I have bulletin boards to be put up, I*

put her in charge of the committee. She can take that over and really get things done. She shows a lot of enthusiasm towards new things and she is very independent. She has just become independent in about the last year and a half. Before that, she wanted everyone to show her exactly how to do things. She has certainly changed. She uses her own initiative and can really accept responsibility. Her coordination is probably one of the best in the class.

16. *He has the ability to follow directions but does not always do so. He does participate in class. He has the ability to work in a group. He reads on the 4th grade level. He enjoys school. He had an operation to free his tongue at the age of four and was taught to speak at a large medical center. His records say that he did not participate in class. I doubt if he was given a chance to speak. He loves to work on any machine and is very good at doing this. He is interested in any audio-visual equipment and has much curiosity. He is very independent and has the ability to accept responsibility. He has good coordination.*

17. *This student is very, very low functioning. She was in a normal classroom until junior high school but only has an IQ of about 51. We had a staffing on her to consider placing her in a trainable center but instead decided to wait a semester to see what happens. She is very quiet. She has a hearing problem. She had some problems in her early childhood. She was a breech delivery. She developed normally until about 15 months when a sister was born. From this time on she regressed; she had started to talk but now went back to babbling. Probably she regressed because of this sister. She had no abnormal childhood diseases yet never did well in school. She is very quiet in class and does not contribute. She needs to be given directions separately. She gets along with others all right. She is not outgoing at all. She seems to enjoy friends and brightens up when people talk to her but she will not go out in search of them herself. She is not too social minded so she doesn't stick out in a crowd. She is not very mature although she is 14. She does not work in a group very well. She just sits and does not contribute at all to the group. She is almost a nonreader although lately she is beginning to show some improvement. She knows her letter sounds but that is all. If anything, she is probably reading on a first grade level. She does not seem to have any severe emotional problems besides the fact that she is just very, very young. There are many children in the family, I believe 8. Her father has a job at a trucking or transport company but does not make a great deal of money; therefore, the home situation is probably fair but not outstanding. Her attendance at school*

(Continued)

TEACHERS' DESCRIPTIONS *(Continued)*

is good, but yet from what she says, you can't tell whether she likes it or not. She never shows any facial expressions. Emotionally she seems a blank. She does get very sad, and tries to defend herself but yet she doesn't ever seek out help on her own. When you go to her to give her extra help, she doesn't seem to put out any extra effort. She doesn't seem to have any interests outside school—she doesn't belong to anything. She comes to school and goes home—that's about all. She does her best in music. She shines a little bit here but not in any other classes. She does her work but doesn't seem to know how to go about it or do well at all. She shows no curiosity, and little enthusiasm. She is almost nonverbal in class—she rarely speaks out. She also seems very, very dependent and needs to be helped, usually by someone sitting next to her, or by the teacher, to complete any tasks. She may begin to complete it but because she doesn't know how, she won't continue. One example was when we were working on a highway map. I went over to her and said something to the effect of, "Why aren't you doing this?" She said, "Because I don't know how." She is very insecure but has not yet gotten the idea that she needs to say something if she doesn't understand. She would rather just sit there. Unless something is a very simple task, I don't know if she would be able to carry out any responsibility given to her. I doubt if she really uses her own initiative in doing anything. Coordination is not good. She is a very low-functioning girl. She is not doing well in academic subjects. She probably needs more of a home economics, vocational-oriented program. We are waiting to see if we should place her somewhere else or not.

18. *This 8th grade student had made considerable gain since she began junior high here. She is still very shy, but now will make an attempt to answer when called on and participates much more. She is taking home economics, and even though she is very slow has been quite successful. Her reading has improved to the point where she has a basic sight vocabulary and can sound out words quite well. We also discovered she had a hearing loss which quite likely affected much of her work. She still gets frustrated easily but has turned into a hard worker*

19. *He is a Spanish-American boy. He comes from a very good home. His father speaks English, but the boy says he isn't allowed to speak English in the home. He is a nonreader. I feel that he has the ability but there is something blocking him from reading. I don't know if it is dyslexia or quite what it is. We are going to be working with him this year on it. He can do*

arithmetic quite nicely. If you read story problems to him, he can often tell you the answers—even with fractions. He can come right up with an answer. He can't even read the simplest words like "an" or "a." The only thing he can read or recognize is his own name. He can follow oral directions very nicely. He participates at least verbally in our class. Social adjustment seems to be very good. The kids respect him. He is one of the leaders in the classroom. It's hard to say where he is functioning academically because of this reading problem. I thought once that he might have a perceptual problem but I really don't know. We are still working on it. It could be an emotional problem, too, though he seems quite stable in the classroom. He has very tender feelings. He gets his feelings hurt very easily, but then he bounces right back and will pitch in again. He likes school. His interests lean toward art also. He is curious about new things and he shows a lot of enthusiasm, too. He isn't afraid to try anything new as long as it doesn't include reading. He is very independent. He accepts responsibility real well and he will use his own initiative especially in the field of art. His coordination is very good and his motor functioning is very good, too.

20. *This student can follow directions. He is very good at participating in class, and socially he is just one of the most open boys in the class. He always has something to say. He can work in a group. His level of functioning is about first or second grade level. He has a very, very hard time at reading. He cannot write on his own—he can copy. Right now he is integrated into PE and will take shop next semester. His level of functioning keeps him back academically. He accepts other people. He is hyperactive. He walks a lot. He can't stick with one project or assignment very long. Emotionally he is pretty well adjusted. He does get upset because he imagines things, like the other children talking about him. He likes school. He is curious and enthusiastic but his academic level of functioning usually keeps him from understanding what is going on. He is not very independent—he needs almost a one-to-one relationship to read, write, understand. He is responsible, though. He can remember what time classes are, where to go, when to go. He is no real discipline problem because he does do what he is told. He is just hyperactive and most of the time just does not understand.*

21. *This student is an epileptic, although under control. She sometimes has petit mal seizures but she doesn't have grand mal seizures. She is not too overly medicated. Sometimes she takes advantage of her condition and will put her head down on the desk and pretend to be resting. She is an extremely immature girl. She is babied at home. She is not well-liked especially by the boys. She has a few friends among the girls but they don't seek her out very often. She is stubborn but functions highly in class. She is one of our better students. Because of her immaturity and spoiled upbringing, she sometimes refuses to do her work. She wants very, very much to be praised, to be the teacher's pet. She wants things to do. She talks a lot—she hangs on you quite often. She does not volunteer answers in class, yet when she is asked she usually knows the answer. She seems to be focusing now on the boys. Whenever a man comes into the room, she seems to be extremely interested. She is very attached to the man teacher in special education and probably has some emotional problems of some sort in her adjustment. It is very obvious that she is extremely immature. She works in a group well, although often wants her own way. She has become friends with one girl in the class which is very unusual because this girl functions much, much lower than she, so she is the leader in the pair. They walk down the hall hand-in-hand which again shows their immaturity. I do not know much about her background. I do know her mother babysits quite a bit. Her mother works and when she forgets her lunch, her grandmother will come to school and take her out to lunch. She seems to enjoy school. She is absent very seldom. She reads quite a bit and seems to be interested in religious topics. She has gotten quite a few books out of the library on religion. She has the ability to work independently yet she still is quite dependent on adults. She does not accept responsibility very well. She will not finish a task as soon as her peers do and this holds back her group's project. Her coordination is fair. She is still growing up—is quite lanky—but again no great coordination problem. The main thing about her is her lack of maturity. She functions highly but does not use it as much as she could. She puts on being very shy, yet she is not. She kind of pouts and hangs her head, too. She wants more attention. This girl also has made great gains. Much of her immaturity has disappeared. She is very concerned about being a lady. Her seizures are not often but she does have them. She gets very embarrassed when this happens. She still has a way to go but has come a long way already.*

22. *He is a Spanish-American boy who is new to the program this year. He has many emotional problems and is very hyperactive. He cannot follow directions. He hates school. He tries to participate in the schoolroom by being very funny. He's the class clown. Everyone laughs at him. I think he does it to cover up his insecurity. Academically he could be one of the better students, possibly the top student, but he is functioning at about a third grade level. I feel that he has many emotional problems. He lives with his grandmother who speaks no English. His mother lives right in town. He has a brother in special education in the room next door who he is always trying to see. It is quite a sad situation there. He hates school, he hates teachers, he even hates himself. There are a great many problems to overcome there. We are working with him on this self-concept. His interests lean towards art. He is a very good artist. He shows curiosity and enthusiasm towards things but after the first five minutes that's lost, too. He tries to be independent but independent in the wrong way. He can't accept responsibility yet. He is very well coordinated and he has fine motor functioning. I hope we can do something for him. I feel that maybe later on we can get him into the room for the emotionally disturbed.* ■